

In Orbit Transportation & Recovery System

ABSTRACT OF THE DISCLOSURE

An *In Orbit Transportation & Recovery System* (IOSTAR™) (10) is disclosed.

One preferred embodiment of the present invention comprises a space tug powered by a nuclear reactor (19). The IOSTAR™ includes a collapsible boom (11) connected at one end to a propellant tank (13) which stores fuel for an electric propulsion system (12). This end of the boom (11) is equipped with docking hardware (14) that is able to grasp and hold a satellite (15) and as a means to refill the tank (13). Radiator panels (16) mounted on the boom (11) dissipate heat from the reactor (19). A radiation shield (20) is situated next to the reactor (19) to protect the satellite payload (15) at the far end of the boom (11). The IOSTAR™ (10) will be capable of 5
accomplishing rendezvous and docking maneuvers which will enable it to move 10
spacecraft between a low Earth parking orbit and positions in higher orbits or to other locations in our Solar System.